AUTOMATIC BAT KNOCKING MACHINE

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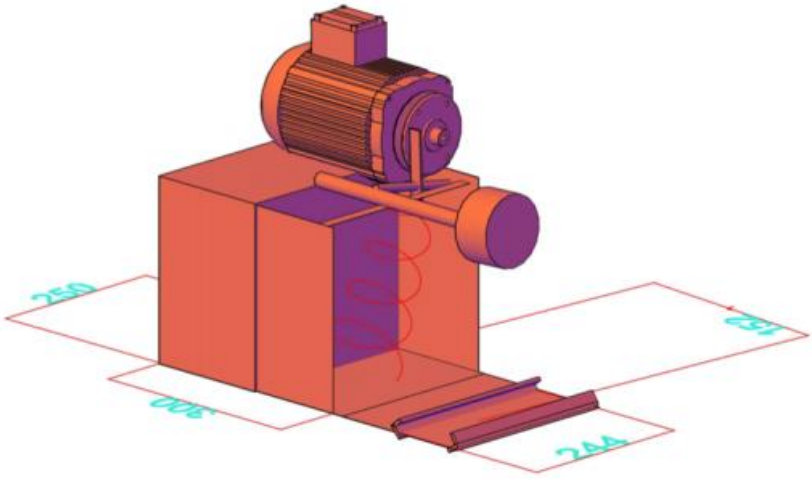
Abstract: As a sport with long history and rich tradition, cricket has seen little enhancement with regards the performance of the cricket bat since its inception. Most of the recent work has focused on blade design variations, while radical improvement to the blade is limited by the rules of the game. The aim of this study is about mapping the best performance range of the bat and finding a way to improve the performance of the bat within the laws of the game. A Finite Element model of the cricket bat was developed. It was shown that the lower the dwell time (ball-bat contact time), the less the bat deflection and hence more energy is transferred to the ball. The simulated stiffening of the bat's handle with fibre-reinforced rubber was shown to mimic this reduced dwell time phenomenon.

Index Terms: **Mechanical department, automatic bat knocking machine, can be used for domestic purposes.**

I. INTRODUCTION:

Automatic Cricket Bat Knocking Machine. Fully Automatic Bat Feeding Mechanism to eliminate operator thrust. Automatic Knock counter with functionality to set up desired input knocks. Robust, Heavy Duty and Beautiful Structure of Machine. Cricket *Bat Knocking Machine*. Knock your bat for over 5000 strikes from edge to edge and toe to splice without hustle of manually knocking in with a ball mallet. A leather ball, fitted on top of the bat in the machine, in 25 minutes flat hits the willow 4,000 times, the number ideally required in bringing the 'stroke' out and making the bat fit for matches.



1.1 Automatic bat knocking machine

II. PROBLEM STATEMENT

- At first, we make the cam with stainless steel.
- But it is costly.
- So, we make the cam with iron. At first, we make channel like part to hold the bat.
- But in that part a problem occurs that is the is not fix the top portion it is moving.
- For this problem we make V-Block type frame to hold the bat.
- Now it is fixed from the top.

III. PROCESSED APPLICATION

- A research project conducted in several east coast states utilized some rather high-tech systems for bat knocking and proper strokes to be made on the surface of the bat. Consider using bat at good quality and heavy bat. It will not only knock the bat but also keep your septic bat healthy.
- The will be passed through a mallet to knock the bat properly.
- Energy converters it into a more widely used to knock the bat and made the bat stronger to play the strokes more better way manner involve the transformation of bat that will able to play the ball in the accurate manner and position.
- After the moving of the bat the strokes will be able to play in the field and by changing the position of the bat the all the surface of the bat can be knocked properly and the wooden surface can be properly covered in knocking of the bat as to play more strongly and properly the ball we want to play.
- After the bat is knocked properly the ball can be in played in the proper direction and wood is now stronger to play the ball
- The more the strong bat the more the health of the bat and more the powerfully the bat knocked be played.
- And at last, the bat is more knocked can be the best bat on the field of the player.

III.1 INSPECTION & TESTING

- Inspection has been done after the project has been assembled.
- We check the frame alignment.
- Check the alignment of the mallet.
- Check the alignment of the spring.
- Check the alignment of the cam.
- Check the alignment of the v- block.
- Proper fitting of bottles in the frame.
- Checked proper fitting of motor on the frame.
- Checked proper fitting of v-block on the frame.
- finally checked the proper knocking of mallet on the bat.

IV. RESULTS & DISCUSSION

- At the first we had made a frame from light weight steel.
- Because our project is portable type so, it can carry easily.
- But in light weight steel it does not absorb vibration of knocking.
- Now we make the frame with iron.
- So, it can absorb the vibration of knocking.

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CONCLUSION

- We conclude that by better utilization of bat knocking machine brings us too many benefits like reduces knocking time, accurate knocking, reduces labour work, eliminates manual knocking.

FUTURE SCOPE

- It can be driven by sensors.
- It can be make faster.

V. ACKNOWLEDGEMENT

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WEBSITE

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